



# Tropical Cyclone Data Availability

- **Satellite Services Division (SSD) of NOAA-NESDIS** [www.ssd.noaa.gov](http://www.ssd.noaa.gov)  
Also, [www.goes.noaa.gov](http://www.goes.noaa.gov) & [www.osei.noaa.gov](http://www.osei.noaa.gov)
- **Cooperative Institute for Meteorological Satellite Studies (UW-CIMSS)**  
<http://cimss.ssec.wisc.edu/tropic/>
- **Cooperative Institute for Research in the Atmosphere (CSU-CIRA)**  
[www.cira.colostate.edu](http://www.cira.colostate.edu)





# Satellite Services Division Tropical Page

## www.ssd.noaa.gov/PS/TROP



NOAA Satellites and Information

National Environmental Satellite, Data, and Information Service



Satellite Services Division

Tropical Products

DOC / NOAA / NESDIS / OSDPD / SSD /

Disclaimer and Privacy Policy

Coast Watch Fire OSF Precipitation Sat Info Snow & Ice Tropical Volcano Winds GIS

Mission Statement

### Text Products

#### Bulletins:

Eastern Hemisphere [Bulletins](#)  
Bulletins (and Advisories) by Basin [Map](#)

#### Advisories:

Tropical Systems [Position and Intensity Page](#)  
[Atlantic](#) Section  
[East Pacific](#) Section  
[Central Pacific](#) Section  
[West Pacific](#) Section  
[South Pacific](#) Section  
[Bay of Bengal](#) Section  
[Arabian Sea](#) Section  
[South Indian](#) Section  
Indian Ocean Tropical [Summaries](#)  
(Discontinued February 1, 2004)

#### More information about our Tropical Products

The SSD Tropical Program - coming soon  
The Dvorak Classification [Technique](#)  
Tropical Storm [Current Intensity Chart](#)

#### Links to Outside Tropical Products (Text)

[NOAA National Hurricane Center](#) forecasts

#### Case Studies

[South Atlantic Hurricane of 2004](#)  
[Heavy Precipitation Auto-Estimator - Tropical Storm Allison \(2001\)](#)  
[Operational Significant Event Imagery - Hurricane Mitch \(1998\)](#)

### Satellite Imagery and Graphics

#### Real Time Satellite Imagery

[Atlantic and Gulf of Mexico](#)  
[East and Central Pacific](#)  
[West Pacific Coming Soon](#)  
[Geostationary Satellite Server - Hurricane Sectors](#)  
[CoastWatch GOES Products](#)  
Operational Significant Event Imagery

- [Tropical Events](#)
- [Current Events](#)

[Imagery System Status](#)  
[GOES 8 \(East\) Image Archive \(Search\)](#)  
[GOES 10 \(West\) Image Archive \(Search\)](#)

#### Areal Tropical Rainfall Potential (Experimental):

[DMSP SSM/I, NOAA AMSU, and NASA TRMM](#)

#### Links to Outside Tropical Products (Imagery and Graphics)

[RAMSDIS Online - Tropical](#)  
[Navy Research Laboratory - Tropical Satellite Products](#)  
[NASA Global Hydrology and Climate Center](#)  
[NCAR-RAP Real Time Satellite Page \(CONUS Only\)](#)  
[NOAA/NESDIS Office of Research and Applications FPDT](#)  
[NOAA/NESDIS ORA Storm Centered Derived Winds](#)  
[University of Wisconsin SSEC GOES-East Images](#)  
[NOAA/NWS Western Region](#)  
[QuickScat Scatterometer Winds](#)  
[Advanced AMSU Products from CIRA](#)

Dvorak  
Classifications

Satellite Imagery  
Tropical Sectors

Tropical Rainfall  
Potential (TRaP)

LAST MODIFIED: March 26, 2004 at 11:35:41 UTC  
You are Here: <http://www.ssd.noaa.gov/PS/TROP/index.html>

Contact Information:  
[SSDWebmaster@noaa.gov](mailto:SSDWebmaster@noaa.gov)



# Satellite Services Division Tropical Page Products

## [www.ssd.noaa.gov/PS/TROP](http://www.ssd.noaa.gov/PS/TROP)

### Tropical Storm Position and Intensity Page

Last Update: Mon Apr 19 02:55:06 UTC 2004

Users are reminded that the posted SSD position and intensity may differ from official information.

For official information:

[Tropical Prediction Center \(TPC\)](#)

[Central Pacific Hurricane Center \(CPHC\)](#)

[Joint Typhoon Warning Center in Honolulu \(JTWC\)](#)

Most Recent Positions Regardless of Basin (if available):

DATE/TIME	LAT	Lon	CLASSIFICATION	STORM	
19/0225 UTC	21.2N	147.2E	TOO WEAK	90W	-- West Pacific Ocean
18/0225 UTC	16.3N	147.7E	TOO WEAK	90W	-- West Pacific Ocean
17/2025 UTC	17.0N	147.6E	T1.0/1.0	90W	-- West Pacific Ocean
17/1502 UTC	16.8N	149.0E	T1.0/1.0	90W	-- West Pacific Ocean
15/2025 UTC	26.6N	146.3E	EXTRATROPICAL	SUDAL	-- West Pacific Ocean

APRIL 04 2004 1202Z

7.1N 150.4E T2.5/2.5/D1.0/24HRS 03W

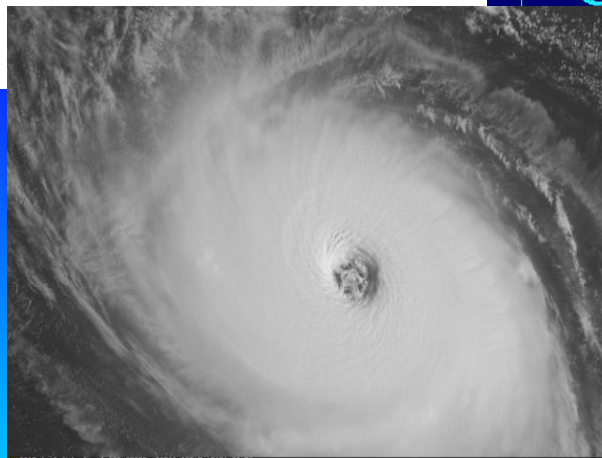
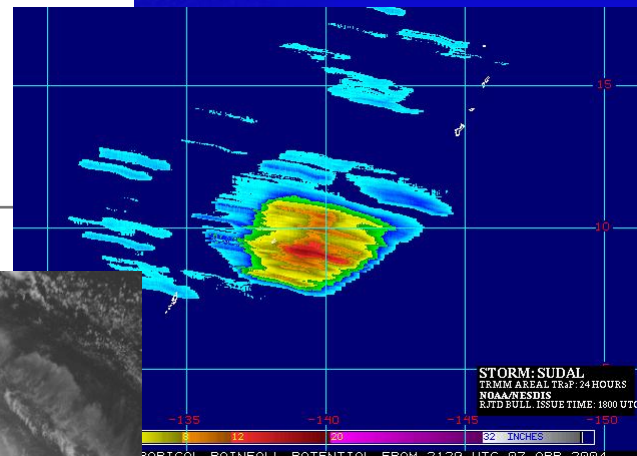
PAST POSITION...6.5N 150.3E 04/0225Z VIS/IRDAY  
6.5N 150.6E 03/1525Z IRNIGHT

REMARKS...1051Z SSMI PASS SHOWED A NICE BROAD CYCLONIC ENVELOPE BUT LITTLE DEFINITION FOR DETERMINING THE EXACT INNER CORE/CENTER. LOOP OF IMAGERY SUGGESTS SLOW MOVEMENT BUT MORE NORTHERLY IN THE PAST 24 HOURS...SO WILL MOVE CENTER FURTHER NORTH AND CLOSE BUT NOT UNDER THE EDGE OF THE DEEPENING/EXPANDING COLD TOPS. CENTER FIX GIVES .45 BANDING WITH DEEP WHITE FOR A DT OF 3.0. MET IS 2.5. PT IS ALSO 2.5. DUE TO THE BURSTING NATURE AND LACK OF CONFIDENCE ON LOCATION FT WILL BE RAISED BUT ONLY TO 2.5 BASED ON MET AND PT.

### Dvorak Text Bulletins

### Dvorak Classifications and TC Positions

### Tropical Rainfall Potential (TRaP)



### Satellite Images

- Sectors and Floaters
- Geostationary and Polar
- Visible, IR, and Microwave

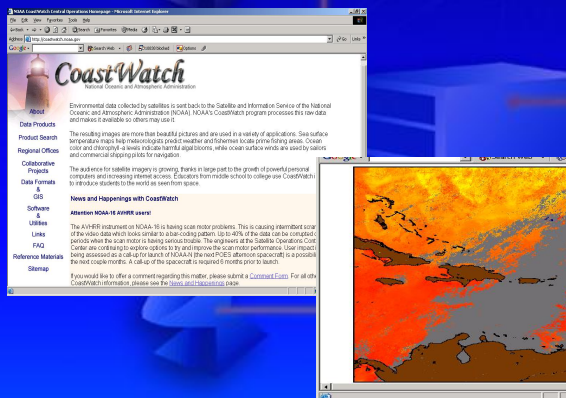
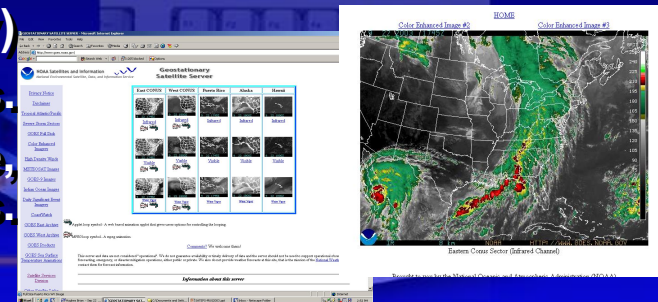




# Other NESDIS Web Pages

## The Geostationary Satellite Server ([www.goes.noaa.gov](http://www.goes.noaa.gov))

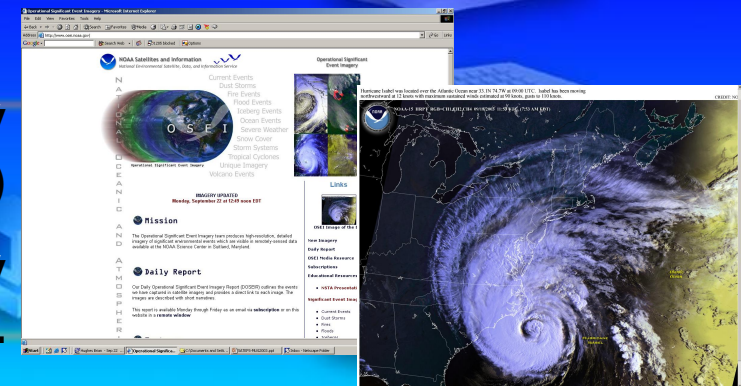
Real time satellite data over large regions.  
Viewing global or synoptic scale events using visible, infrared, and water vapor images and loops.



Specialized imagery for Oceanic events in the Coastwatch (<http://coastwatch.noaa.gov>) web pages. Derived products for oceanic monitoring (sea surface temperature, ocean color, and near ocean surface winds like Quikscat and DMSP wind speed)

## Operational Significant Events Imagery ([www.osei.noaa.gov](http://www.osei.noaa.gov))

High resolution, manually generated, high quality false color images for media and presentations.







# U. of Wisconsin CIMSS Tropical Page

## <http://cimss.ssec.wisc.edu/tropic/>

### Real-Time Data

**NW Atlantic (GOES-12)**

[Winds & Analyses](#)

[Images & Movies](#)

[Layer Mean Wind Analyses](#)

[Saharan Air Layer Analyses](#)

**NE Atlantic (MET-7)**

[Winds & Analyses](#)

[Images & Movies](#)

**NW Pacific (GOES-9)**

[Winds & Analyses](#)

[Images & Movies](#)

[Layer Mean Wind Analyses](#)

**NE Pacific (GOES-10)**

[Winds & Analyses](#)

[Images & Movies](#)

[Layer Mean Wind Analyses](#)

**Combined NE Pacific  
and Caribbean Sea  
(GOES-10/GOES-12)**

[Winds & Analyses](#)

**SE Pacific (GOES-10)**

[Winds & Analyses](#)

[Images & Movies](#)

**Australia (GOES-9)**

[Winds & Analyses](#)

[Images & Movies](#)

**Indian Ocean (MET-5)**

[Winds & Analyses](#)

[Images & Movies](#)

**Global Mosaics**

[Images & Movies](#)

[Tropical Wave Tracking](#)

[-N Atl](#) [-N Pac](#) [-S Atl](#) [-S Pac](#)



## Tropical Cyclones

**University of Wisconsin - Madison**

*Cooperative Institute for Meteorological Satellite Studies*

**Tropical Cyclone Research Team**

**Chris Velden Jim Kossin Tim Olander  
Dave Stettner Derrick Herndon Robert Wacker**

*Remote Collaborators*

*Jason Dunion (NOAA/HRD) Brian Kabat (USAF)  
Gregg Gallina (NOAA/SAB) Howard Berger (UKMETOFFICE)*



### DATA STATUS :

*(as of 19 Apr 2004 / 18:21UTC)*

The current displays of GOES-10 and GOES-12 wind products have been generated using the NESDIS operational satellite wind sets. No derived products are currently available.

### STORM COVERAGE

#### North Atlantic

No Active Storms

[Tropical Weather Discussion](#)

[Tropical Weather Outlook](#)

[Recon Plan of the Day](#)

#### East/Central Pacific

No Active Storms

[Tropical Weather Discussion](#)

[Tropical Weather Outlook-NHC](#)

[Tropical Weather Outlook-CPHC](#)

#### West Pacific

No Active Storms

[Tropical Weather Advisory](#)

#### Australia/Fiji Region

No Active Storms

[Tropical Weather Advisory](#)

#### Indian Ocean

No Active Storms

[Tropical Weather Advisory](#)

**Wavetrak / Mosaics**

Satellite Derived  
Winds and Fields

Images and Loops

Links to  
AMSU/AODT  
and MORE!

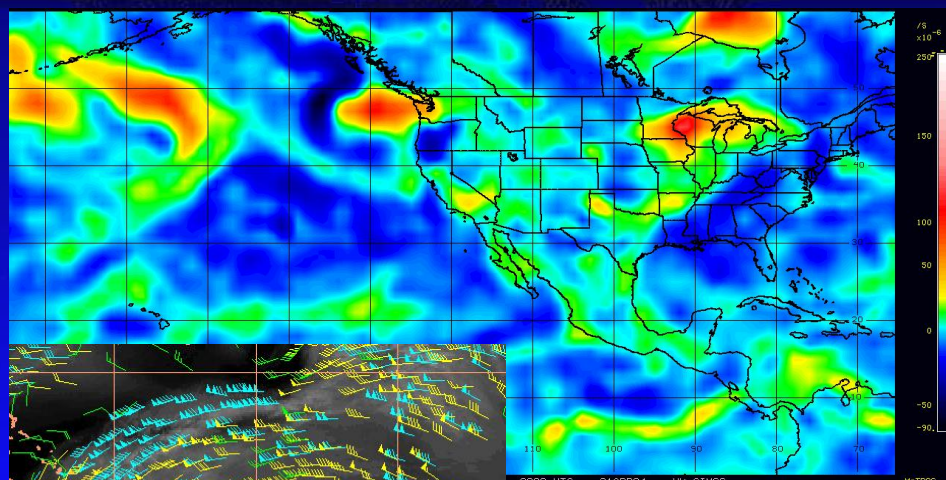
Links to  
"Storm Pages"





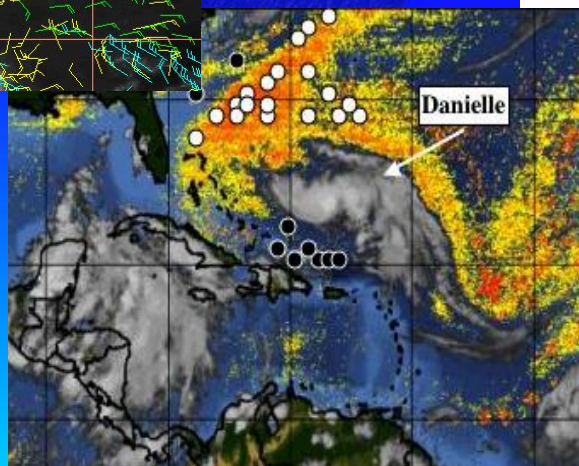
# UW-CIMSS Tropical Page Products

<http://cimss.ssec.wisc.edu/tropic> &  
<http://amsu.ssec.wisc.edu>



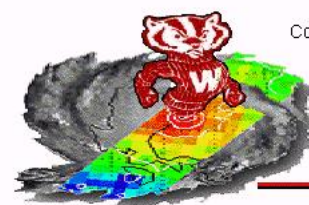
Satellite Derived  
Winds

Saharan  
Air Layer  
Product



AMSU Imagery  
and Intensity  
Estimations

## Satellite Wind Analyses - Vorticity, Shear, Divergence & MORE!



Cooperative Institute for Meteorological Satellite Studies  
University of Wisconsin-Madison

**AMSU**  
*Tropical Cyclone Homepage*

Welcome to the UW-CIMSS Advanced Microwave Sounding Unit (AMSU) Homepage

Latest: AMSU Imagery for the South Atlantic TC is [here](#). South Atlantic TC intensity estimate is [here](#).

Current time: 19:36 UTC Monday April 19, 2004

Western North Pacific/Indian Ocean	Eastern Pacific Ocean	Atlantic Ocean
Select Named Storm: <input type="text"/>	Select Named Storm: <input type="text"/>	Select Named Storm: <input type="text"/>

Southern Indian Ocean/Australia
Select Named Storm: <input type="text"/>

AMSU01 FMEE 040248  
CIMSS/NESDIS-USAF/NRL Experimental AMSU TC  
Intensity Estimation:  
Storm position corresponds to AMSU-A FOV 5 [1<--->30]  
Raw Ch8 (~150 hPa) Tb Anomaly: 1.10 C  
Raw Ch7 (~250 hPa) Tb Anomaly: 1.02 C  
**AMSU-A MSLP (Ch8): 988.7 hPa**  
RMW value: 36.6 Km  
TROPICAL CYCLONE 16S  
AMSU Estimate # 4  
Thursday 04mar04 Time: 0248 UTC  
Latitude: -11.7 Longitude: 58.52  
Satellite: NOAA-15  
ATCF data for Month: 03 Day: 04 Time (UTC): 0000





# Colorado St. CIRA Tropical Page

<http://www.cira.colostate.edu/RAMM/sataptbl.htm#tropo>

Satellite Imagery  
and Loops

Tropical Sectors

- **Tropical Cyclones**

The main objectives of RAMM research on hurricanes and tropical cyclones are to improve our understanding through an observational approach, and to develop and test satellite products for hurricane analysis and forecasting. Previous research has emphasized tropical cyclone formation and intensity changes. Ongoing research projects are investigating [vertical wind shear influences on intensity change](#) and [detailed wind and structure analyses using GOES rapid interval imagery](#). GOES Super Rapid Scan Operations (SRSO) have been requested, and the multi-spectral 1-minute interval imagery have been archived over a wide variety of hurricanes and tropical storms. The SRSO data sets are being analyzed along with aircraft observations, to provide new insight into hurricane intensity changes and three-dimensional wind and pressure patterns.

A unique workstation for ingesting, analyzing and archiving special tropical cyclone datasets has been developed. Based CIRA-RAMM's RAMSDIS, it is referred to as the [Tropical RAMSDIS](#).

[Thanks to Fernando Sotelo, Operational Significant Event Imagery Support Team, Interactive Processing Branch, (E/SP22) for the spectacular image of Hurricane Danielle. Click on the image for a higher resolution view of that storm (over 1MB file size).]



The CIRA-RAMM Team is currently involved in the following tropical cyclone project(s):

- [The Hurricane Mitch Project](#). Due to the devastation of several Central American countries as a result of Hurricane Mitch in 1998, two RAMSDIS workstations will be set up in each country and a satellite ground station will be built in Costa Rica. It is hoped that this will aid local forecasters in issuing warnings for severe weather and flooding. This website contains detailed descriptions of the project as well as the latest information on the status of the project.
- [Experimental Tropical Cyclone Genesis Parameters](#)
- [AMSU Tropical Cyclone Wind Retrieval](#)
- [Tropical Satellite Archive and Analysis](#)

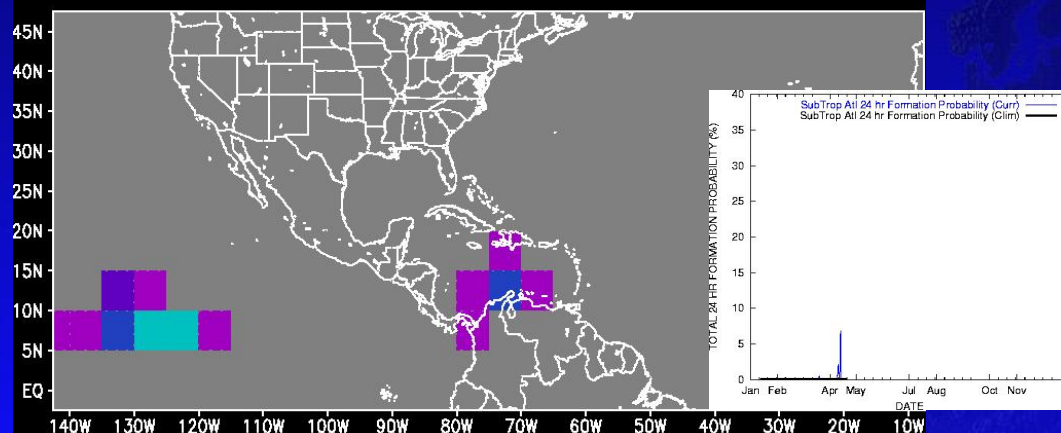
Links to TC Genesis  
Parameters, AMSU Wind  
Retrievals and MORE!



# CSU-CIRA Tropical Page Products

<http://www.cira.colostate.edu/RAMM/OVERVIEW.HTM>

Curr Gen Prob 2004 APR21 06Z

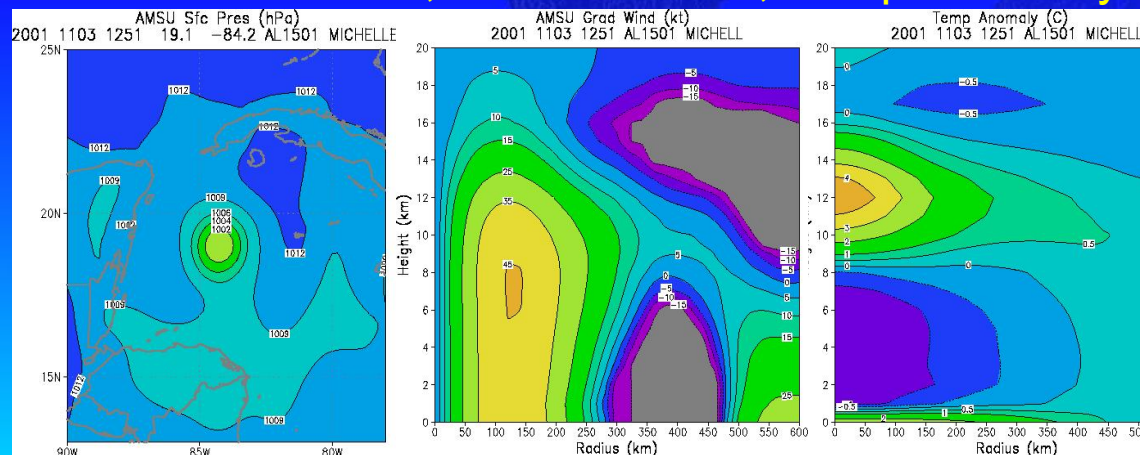


Atlantic/EPAC Genesis Parameters  
Ex: General Probability and plot  
of Formation Prob. so far in 2004

AMSU Wind Radii and  
Intensity Estimation Email

Derived AMSU fields

Pressure Contours, Gradient Wind, Temp. Anomaly



CIRA/NESDIS Experimental AMSU-A TC Intensity/Size Estimation - NOAA15

Tropical Cyclone SH162004 GAFILO  
Current date/time: 2004 0304 0600 UTC  
ATCF file date/time: 2004 0304 0000 UTC

AMSU swath date/time: 2004 0304 0249 UTC

**Minimum Sea-Level Pressure: 979 hPa**  
**Maximum Surface Winds: 67 kt**

**34 kt wind radii (NE,SE,SW,NW): 103 73 82 119 nmi**  
**50 kt wind radii (NE,SE,SW,NW): 46 36 39 50 nmi**  
**64 kt wind radii (NE,SE,SW,NW): 0 0 0 30 nmi**

AMSU-retrieved max wind radius: 29 nmi

Storm center is 587 km from AMSU swath center  
0-300 km is optimal  
300-600 km is adequate  
>600 km is marginal

AMSU data is 2 hr from time of ATCF input